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**SURVEY TO DETERMINE THE NEED FOR
DOCTORAL LEVEL PERSONNEL IN
VOCATIONAL AND TECHNICAL EDUCATION**

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**South Carolina Advisory Council
on Vocational and Technical Education**

1973

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INTRODUCTION

In the late fall of 1971, the South Carolina Advisory Council, in cooperation with the Office of Vocational Education, concluded a study of Ancillary Services in Vocational Education. In this report, reference was made to the need "for a terminal degree program in Vocational and Technical Education Administration."¹

On October 24, 1972, Drs. Earl T. Carpenter and Robert T. Benson of Clemson University met with the Advisory Council in a regular meeting and discussed the apparent need for a proposed terminal degree program in occupational education in South Carolina. They stated they had no objective data to support or refute this perceived need, and asked for Advisory Council assistance in obtaining data. It was believed that a non-involved party (the Advisory Council) might be in a better position to obtain more bias-free data. Following discussion, the Council voted to assist in compiling appropriate information.

Under the direction of the Ancillary Services Committee, the executive director of the Advisory Council proceeded to design and carry out this study. This writer accordingly met with the department heads of the teacher education staff at Clemson University. As a result, the procedures were developed to accomplish the stated objectives.

Mr. L. L. Lewis, Director of the Office of Vocational Education, State Department of Education; and Dr. Larry McDougle, Executive Assistant to the Executive Director of the State Board for Technical and Comprehensive Education, were extremely helpful in conducting this study. Both men completed or had the survey forms completed, reviewed some of the returned forms from centers, and provided assistance in reviewing and providing valuable suggestions for the draft of this report.

OBJECTIVES

The purpose of the study was to assess the need for a doctoral level preparation program in South Carolina for Vocational and Technical Administration. To accomplish this, the following objectives were stated:

To determine the present number of doctoral level persons active in vocational and technical education in South Carolina at the time of the study, excluding teacher education personnel.

To determine the anticipated number of doctorates in vocational and technical education by 1982 (ten years), by pre-determined categories of administration, counseling services, instruction, and other.

To obtain some indication of supply and demand from training programs in selected nearby states.

To determine, preferably by name, an accurate indication of the extent of interested or potentially capable enrollees if such a program were available.

¹p. 3.

ASSUMPTIONS

Any attempt at sociological research must necessarily be based on a number of assumptions. The greater the number of assumptions, moreover, the greater the probability of error. Particularly in a study of this type which attempts to probe into the future, the number of possible assumptions are almost too numerous to list. Rather than list many assumptions and thus bore the reader, several supporting statements concerning this procedure shall be stated:

Generally, the closer the source of "action" the more accurate the predictions will be.

Every effort has been made to err, if necessary, toward conservatism.

The usual pattern in prediction studies is that unless the direction of the trend reverses, nominal estimates (such as called for here) turn out to be too conservative.

Current trends and the accelerating tempos of progress in vocational and technical education — including some community college emphasis — would tend to support the findings.

Many other factors which might be included and which would inflate the recorded data were not included:

*The assimilation of persons with doctoral degrees into related areas once a program is established.

*Normal attrition of persons with doctoral degrees through geographic mobility, for health reasons, and other reasons.

*A predictable increase in the number of Area Vocational Centers, and other occupational oriented institutions.

PROCEDURE

This study was accomplished primarily by means of a mailed or hand-out type of survey form. With few exceptions, the writer had little or no opportunity to interact with those who completed the forms. Data concerning three of the four previously-stated objectives were obtained from the forms. Data on the other objective were obtained in telephone conversations with the heads of appropriately selected vocational or occupational education departments of major universities in other states.

As the primary source of data, a one-page format was devised for the survey form, which could be readily interpreted by the respondents. The first opportunity to distribute the forms to vocational personnel was presented by a meeting of the State Association of Vocational Directors on November 15, 1972. A large majority of the Area Vocational Centers was represented at this meeting, primarily by the Center Directors. The opportunity was given to make a few brief explanatory remarks and to distribute the forms. Many of the Center Directors completed the forms at that time, which were then collected at the conclusion of the meeting.

Approximately three weeks later, a follow-up letter and additional form was mailed to the non-responding Centers and to selected county or school system vocational directors. Of 38 identified directors of vocational education, 36 responded, representing 94.7 percent.

Concurrently, and beginning with a meeting of technical center directors on November 17, 1972, a similar procedure was followed for technical education personnel. At the meeting, the forms were passed out by Dr. McDougale without any explanatory comments. A follow-up to those technical education centers that had not responded was mailed at the same time as the follow-up letter to vocational centers. All of the 19 identified technical education institutions responded.

Similar forms were presented to key staff persons in the state administration of technical and vocational education, which were carefully completed and returned.

Overall, 59 institutions or organizations were asked to respond, with adequate replies received from 56, for a 95 percent return rate.

The data provided by the completed forms were tabulated, and the information contained in this report was derived primarily from this source.

FINDINGS

The data obtained for this study confirmed that the size and style of operation differs between the vocational education centers and the technical education centers, while the nature of the state staffs of each organization presents yet another facet. The data are therefore presented in three sections, namely local vocational education, local technical education, and state staff vocational and technical education. Selected items of these three sub-parts are then combined for an overall view of the results.

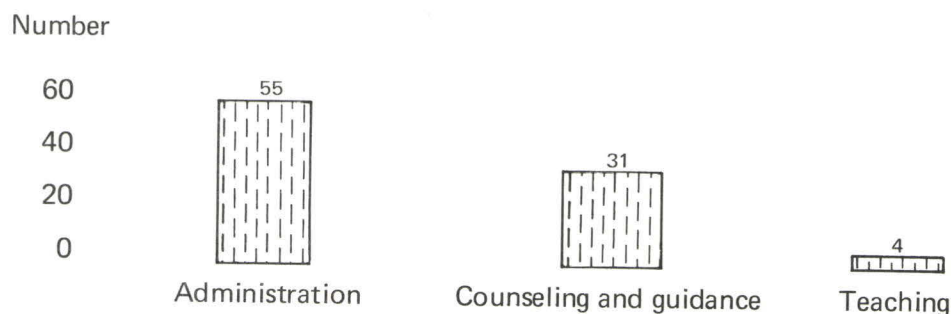
Vocational Education, local level

It was found that as of the end of 1972, there were very few persons with a doctorate in vocational education active in South Carolina, exclusive of the teacher education staffs. Of 36 responding vocational centers or county vocational directors, only two persons with an earned doctorate were named, a very small percentage.

When asked to estimate the number of positions that the respondent expected to be filled in his institution or organization by a person with a doctorate within ten years, an entirely different cast was presented. From the respondents, a total of 90 positions for doctorates were estimated.

TABLE I

Estimated Positions in Vocational Education
for Persons with Doctorate by 1982



Three-fifths of these positions were predicted to be in administrative roles. Interestingly, while none of the present center directors have the terminal degree, the directors estimated that within the 10-year span, 85 percent of the centers will be directed by someone with a doctorate.

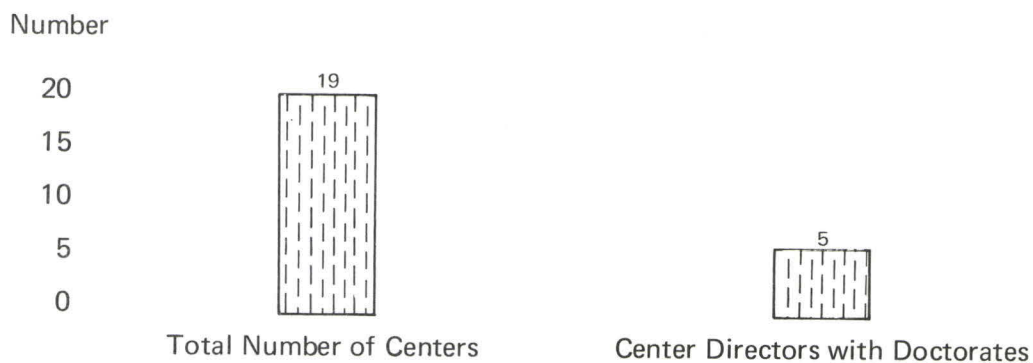
Information was also requested concerning persons who the respondent thought would "have the capability and desire to pursue advanced studies leading to a doctorate."² From the local vocational education centers or county directors, a total of 48 names were submitted. Consistent with the prediction that within a decade 85 percent of the centers will be guided by one with a doctorate, many of the present center directors submitted their own names as one who was actively interested. Forty-four percent (N=21) of the ~~84~~⁴⁸ names submitted were classified as administrative in nature, or as administrative interns. When compared with the fact that most of the centers had only one administrative person, the director, the intense interest can readily be seen.

Technical Education, local

By the close of 1972, there was a growing trend toward employment of persons with the doctorate in the Technical Education Centers in South Carolina. Five of the Centers had directors who possessed the doctorate, while other persons with terminal degrees were dispersed throughout the centers in administrative and teaching positions.

TABLE II

Number of TEC Institutions Directed
by Persons with Terminal Degrees
1972



There were a total of 23 persons on the staffs of local centers with the doctorate. This averaged slightly over one person per center, primarily found where specialists in business law, fields of medicine, or physics were engaged in the instructional areas.

According to the best available predictions, a pronounced increase may be expected in the number of terminal degree persons in the TEC institutions by 1982. As reported above, there are presently 23 persons employed, five of them directors. The predicted growth, however, will call for a total of 265 persons, an increase of 242.

²from the survey form.

TABLE III

Number of Doctorates in TEC Centers
1972 (Actual) and 1982 (Estimated)



The expected doctorates in the local technical centers would be engaged in a variety of positions. The named positions were grouped according to four general categories of administration, counseling and guidance, instruction, and supervisor of instruction or curriculum development, with the other category not being grouped with any of the above. The distribution predicted by this study displayed an interesting profile.

TABLE IV

Distribution of Expected Positions in Technical Centers
with the Terminal Degree by 1982

	Number	Percent
Administration	74	28
Counseling Services	29	11
Supervisor of Instruction	68	26
Instruction	91	34
Other	3	1
TOTAL	265	100%

According to Table IV, the greatest number of persons with the terminal degree would be in instruction, with 34 percent. These may well have terminal degrees in their specialty area. Twenty-eight percent, however, were categorized in the administrative area, closely followed by those who work in the area of specialist or supervision of instruction. Counseling was predicted to call for 29 persons, amounting to 11 percent.

When asked to list those who may be interested in pursuing a doctorate, 85 names were submitted. This indicates an unusually high interest in this type of program.

State Staff, Vocational and Technical Education

The present combined total of professional staff positions in the state staffs of vocational and technical education was derived to be 82 persons. At the time of this survey, five persons were reported to have the terminal degree. It was stated, however, that 23 of these positions may be filled by persons with the terminal degree by the end of a decade, an increase of 18 terminal degrees. This assumes no marked changes in the size of the respective staffs, but merely a best estimate based on present roles and current trends.

TABLE V

Vocational and Technical Education State Staff
Number of Doctorates 1972 and Predicted Number 1982

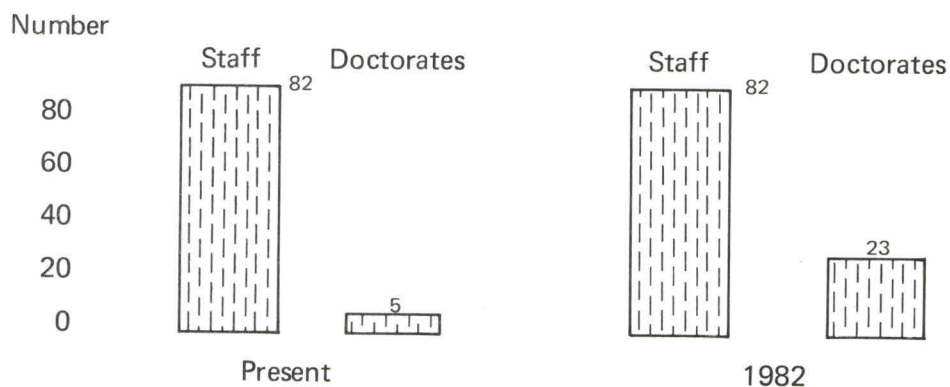
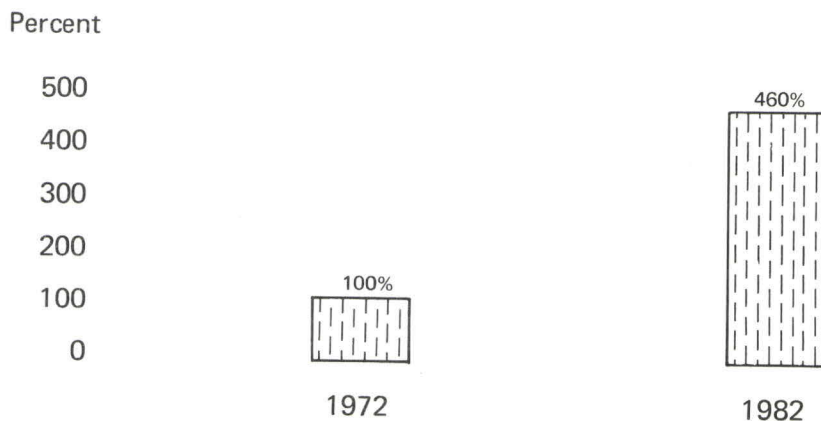


TABLE VI

Predicted Percentage Increase in Number of
Terminal Degrees on State Staff, 1972 to 1982



Inquiry as to the number of persons on the state staffs who might be prospective enrollees in a terminal degree program in vocational and technical education yielded results similar to that derived from the other groups. A total of eleven persons were cited as being capable of and interested in a program of this type.

Combined

Vocational education and technical education programs are not isolates, nor do the professional personnel work in isolation. The distinction is more one of organizational styles and age of the students than one of philosophy.

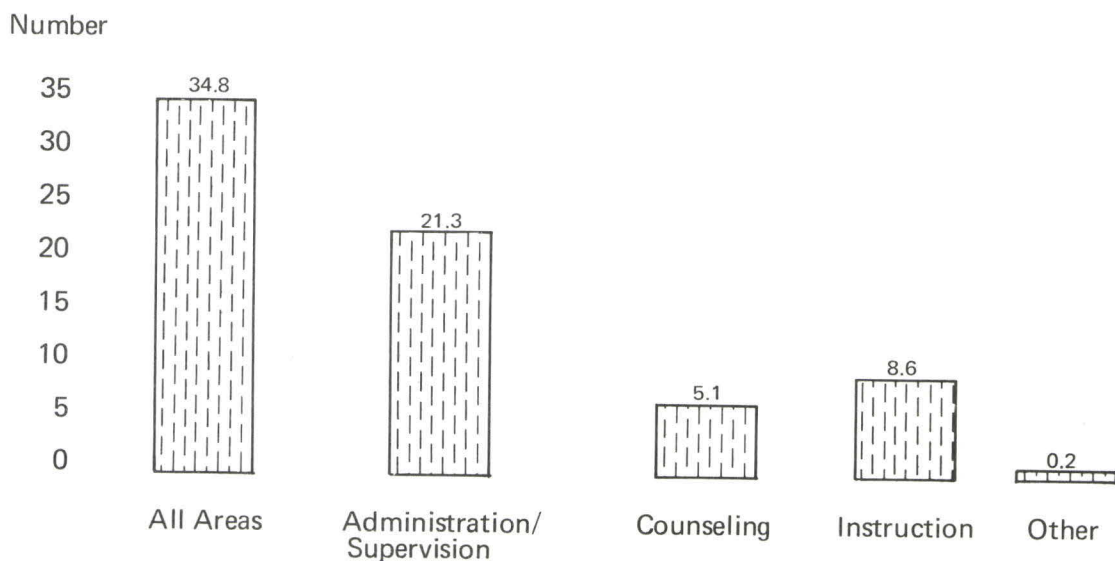
In 1972, 30 persons were reported with the terminal degree, exclusive of the teacher education personnel in the state. The prediction for 1982, a scant ten years away, presents an entirely different view. By 1982, the predictions were that 378 persons so prepared will be needed to adequately staff the vocational, technical, and state administrative programs. Assuming an even distribution over the ten-year span the increase alone forecasts almost 35 additional persons (348) with doctorates needed per year.

In this analysis, three distinct types of roles were identified. These were: administration and supervision, counseling and guidance services, and instruction. With this approach, little distinction would be made between the preparation or role of one classified as a dean of a division and that of an associate director; both would be in the administration and supervision area. On the other hand, the preparation for one to serve in the counseling role may well be separate from the above. Similarly, the terminal degree for one engaged in instruction probably would have been in the area of specialty, e.g., mathematics, physics, law, or some other area as contrasted with study in the area of vocational and technical education administration. Consequently, the grouping which follows was arrayed according to this particular logic.

The forecast increased need for persons prepared through the doctorate degree averaged 34.8 persons per year. Of this total, over 60 percent of the positions were cited as being in administration and supervision. See Table VII. Instruction was next in order, with an average increase given as almost 9 persons per year. This was followed by the area of counseling and guidance services where a total increase of 59 positions provide a mean of 5.9 per year.

TABLE VII

Increase in Number of Positions for the Doctorate Degree
per year by Area of Specialty



Of considerable interest was the number of center director and associate director positions forecast. According to the data, six positions of this type were filled by terminal degree persons in 1972. By 1982, however, the prediction was for 67 of these positions to be filled by someone with this degree. The directors position alone was forecast to increase by 35 over the present five positions to a total of 40. This again indicates the strong concern that was expressed for terminal degree persons to head the various institutions as one indicator of strong leadership.

The question of a qualified and interested pool of potential candidates inevitably occurs when any educational program is contemplated. An effort to obtain data on this was therefore made. Those participating in the survey were asked to name persons who have either expressed interest, or in the opinion of the respondent, had the potential to undertake a course of study leading to a doctorate.

A list of almost 150 persons were identified as a pool of potential enrollees. No attempt was made to screen or assess qualifications, but by name and institution a total of 144 persons were listed.

TABLE VIII

Source of Nomination as a Potential Candidate
for a Doctorate Program in
Vocational and Technical Education

	<u>Number Nominated</u>
State Staff	11
Vocational	48
Technical	<u>85</u>
TOTAL	144

Several notes of extreme interest were received, and in addition several persons who are recognized for their leadership were quick to list their names first.

SUPPLY — SELECTED INSTITUTIONS IN ADJACENT STATES

Selected institutions in adjacent states known to have approved doctoral programs in vocational and technical education were surveyed by telephone. Major institutions in North Carolina, Tennessee, Georgia, and Florida were included in the survey. Information was requested pertaining to the number of persons who completed the doctoral program in 1971, 1972, and the anticipated number of completions in 1973. In addition, information on the first job location of the 1972 graduates was obtained as an indicator of the in-state, out-of-state mobility of graduates.

TABLE IX

Number of Persons Completing Doctoral Programs
in Vocational and Technical Education,
1971 through 1973, Selected Institutions

<u>1971</u>	<u>1972</u>	<u>1973</u> (anticipated)
16	17	34

As may be seen in Table IX, the normal number of doctoral program completions prior to 1973 was approximately 17 per year. Due to the influence of a short-lived Education Professions Development Act (EPDA) program during the past two years, there was a marked increase in number of persons studying in this area during 1972. This caused a corresponding increase in the number of anticipated completions in 1973, continuing through into 1974. The influence of the EPDA programs was already beginning to diminish, however, as support for this program had basically been withdrawn. With South Carolina included on the list of the four states given above, and with an assumption of a normal completion rate of 20 persons or less per year, this provided a figure of four persons per year per state.

The department heads interviewed were asked for data regarding the placement location of the 1972 graduates. There were 17 reported graduates during 1972, of which 59 percent were listed as staying in state, and 41 percent located out of the state in which they completed their program. This indicated reasonable mobility of the graduates, although from this small number no other conclusions were drawn.

During the interviews, two of the five department heads commented on the need for high quality doctoral degree personnel, inferring a shortage of adequately prepared persons in their own states, even though they had a terminal degree program. Also heard were comments that during the internship phase of the candidates' training, good candidates frequently created their own positions, thus essentially contributing to a greater demand for doctoral positions within the state where trained.

From the comments and the brief but indicative data, it appeared that each of the surveyed states was experiencing an increasing demand for persons with doctorates in vocational and technical education. The existing programs were apparently not able to supply the demand even within their own states.

SUMMARY

Based upon the data from this brief study, it appears surprising that there is not already a terminal degree program in vocational and technical education in South Carolina. All indications are that there will be increasing demand for persons with this type of advanced degree. Too, the abundance of interest expressed and a ready source of potential applicants further justify the need for a program of this type.

The total estimate of opportunities for qualified persons is 348 positions. Spaced over the 1972-1982 period, this offers 35 positions a year in vocational and technical education alone in South Carolina. These positions are divided approximately 21 per year in administrative areas and 5 per year in the area of counseling and guidance services, with the remainder comprised of teaching and library services personnel.

Educational programs must inevitably be dependent on available, qualified enrollees, so this dimension was also considered. According to the data provided, there were at least 144 persons named who have either expressed interest, or who were nominated as having the abilities to pursue such a program. Even allowing for over-estimates and changes of mind, an abundant pool of qualified applicants appears evident.

Our South Carolina society benefits from vocational and technical education, and will continue to benefit as enrollments expand in this critical educational area. More trained professionals must be prepared to provide key leadership in this sector. It is urged that steps be taken immediately to implement a terminal degree program in vocational and technical education in South Carolina.

